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А. А. Печеркина, Т. Б. Сергеева

Исследование профессионального здоровья на позднем этапе развития карьеры (на примере учителя школы)

Педагогическая деятельность в России – это область с традиционно высокой профессиональной сохранностью и большим количеством работающих учителей пожилого возраста. В этой связи остро встает вопрос профессионального здоровья учителя, которое определяется как комплекс психологических характеристик, отвечающий требованиям и условиям профессиональной деятельности и обеспечивающий оптимальный для нее уровень работоспособности, развитие личности на всех этапах профессионализации и профессиональное долголетие.

Цель эмпирического исследования – изучение особенностей профессионального здоровья на позднем этапе развития карьеры. В исследовании приняли участие 198 учителей школ, в том числе 98 работающих учителей со стажем более 35 лет (основная группа), 50 молодых учителей со стажем менее 3 лет (первая группа сравнения), 50 учителей, завершивших профессиональную карьеру (вторая группа сравнения). Методики исследования подбирались в соответствии с выделенными компонентами профессионального здоровья: мотивационным, эмоциональным и рефлексивным.

Установлено, что на позднем этапе развития карьеры профессиональное здоровье учителя характеризуется высокой мотивацией к успеху (42%), избеганию неудач (58%), высокой тревожностью (47%) и ригидностью (42%), высокой эмпатией (57%) и системной рефлексией (72,8%). Обнаружено, что у работающих учителей выше удовлетворенность жизнью ($U = 291$, $p = 0.00007$), но они менее готовы адаптироваться к возрастно-временным изменениям, чем учителя, уже завершившие профессиональную карьеру ($U = 344$, $p = 0.001$).

Изменения затрагивают все компоненты профессионального здоровья, но их модальность различна. В то время как повышенную мотивацию к достижению и рефлексивности можно считать в целом положительной тенденцией, изменения в эмоциональном компоненте здоровья (высокая тревожность и ригидность) являются отрицательными. Более высокий уровень удовлетворенности жизнью среди работающих пенсионеров свидетельствует о позитивной роли трудовой деятельности в социально-эмоциональном благополучии пожилого человека.

Полученные результаты уточняют представления о профессиональном здоровье учителя, находящегося на позднем этапе развития карьеры. Результаты составляют информационную основу программ психологического сопровождения учителей предпенсионного возраста

Ключевые слова: профессиональное здоровье, пожилой возраст, поздний этап развития карьеры, педагогическая деятельность

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A. A. Pecherkina, T. B. Sergeeva

Professional health at a late stage of career development (case study: school teachers)

Pedagogical activity in Russia is an area with traditionally high professional livability and a large number of working old teachers. In this regard, the issue of the teacher's professional health becomes relevant. A teacher's professional health is defined as a complex of psychological characteristics that meets the requirements and conditions of professional activity and ensures the optimal level of working capacity, personality development at all stages of professionalization and professional longevity.

The purpose of the empirical research is to study characteristics of professional health at a late stage of career development. The study involved 198 school teachers, including 98 working teachers with a professional experience of over 35-years (main group), 50 young teachers with less than a 3-year experience (first comparison group), and 50 teachers who finished their professional career (second comparison group). The research methodology was selected in accordance with the identified components of professional health: motivational, emotional and reflexive.

It was established that at a late stage of career development, the teacher's professional health is characterized by high motivation for success (42%), for avoiding failures (58%), high anxiety (47%) and rigidity (42%), high empathy (57%) and systemic reflection (72,8%). It was found that working teachers have higher satisfaction with life ($U = 291$, $p = 0.00007$), but they are less willing to adapt to age-related changes than the teachers who already finished their professional career ($U = 344$, $p = 0.001$).

Changes affect all the components of professional health, but their modality is different. Whereas the increased motivation for achievement and reflexivity can be considered a generally positive trend, the changes in the emotional component of health (high anxiety and rigidity) are negative. A higher level of life satisfaction among working pensioners indicates a positive role of labour activity in the socio-emotional well-being of an elderly person.

The results obtained clarify ideas about the professional health of a teacher who is at a late stage of career development. The results form the informational basis of psychological support programs for teachers of pre-retirement age.

Key words: professional health; old age; late stage of career development; pedagogical activity

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Introduction

Population aging is one of the most challenging trends of our society [1]. An increase in the percentage of the elderly is currently observed in all developed countries, as well as in most developing countries. Over the past 70 years, this percentage in Europe and North America has increased from 5.2% in 1950 to 17-20% in 2015, and continues to grow. Researchers suggest that by 2030, many European countries will reach the milestone of 30%, and for the "oldest" countries of the world (for example, Japan, which already reached the mark of 30% of those over 65), this figure may be 45-50%. The older generation is the fastest growing population in the world [2]. With such predictions, science needs to revisit the general concept of aging as a process.

When considering the concept of "aging" two trends can be identified. Firstly, the global increase in life expectancy has led to the period of "old age" (after the conventional reference point of 60-65) increasing. Modern 50-60 year-olds can hardly be considered as people starting the final stage of their life: on the contrary, they are at the height of their strength and capabilities. It should therefore be emphasised that the increase in life expectancy has many consequences, both socio-economic and psychological [3].

The second trend is an increase in the percentage of the elderly population and, which is more important for the society at large, an increase in the percentage of the dependent population in relation to employable population. This is associated with the so-called generations X and Y, children of the 1945s and the 1965s, respectively: in this case, we consider not only those born in these years, but the baby boom in the period of about 3 years before and after these dates. The representatives of these two generations will have reached the reference point of aging by 2030 and the society will find itself in a situation where those born during the two baby booms will significantly increase the percentage of unemployable population.

These two trends pose a very difficult challenge: to specify the modern concept of aging, the period of aging, to determine how to categorise older generation, and find ways to ensure that the elderly are not just maintaining the quality of life, but are leading a full life, including being involved in professional activities.

This issue is of particular importance for representatives of pedagogical profession, since this is an area with traditionally high professional livability and a large number of those still working at a late stage of career development, which is characteristic of Russian schools.

The statistics for Russia as a whole show that the number of teachers has been gradually decreasing in recent years, and the teaching staff is aging. This trend can be attributed not only to the fact that the teaching profession has recently become less attractive, but also to the demographic crisis in the country, which has led to a decrease in the number of students. According to the international TALIS study, the average age of Russian teachers is 52.

The experts of the Centre for Socio-Economic Development of the Institute of Education at the National Research University Higher School of Economics note that Russia is not very different from other countries in terms of the teachers' age structure. Thus, if in the countries of the Organization for Economic Cooperation and Development the average share of teachers aged 50 and over is 35%, in Russia this figure is about 38%. At the same time, the age structure of the teaching staff in Russia has been changing in recent years: whereas the proportion of teachers younger than 35 remains more or less stable (22.7% in 2010, and

22.8% in 2017), the percentage of teachers of retirement age has grown (the increase from 2010 to 2017 was 4.6%) [4].

Russian teachers are more experienced than their colleagues from other countries: their working experience is over 20 years, and they have stayed in their job for more than 15 years. The professional activity of a teacher in the later stages of career development and at the stage of its completion has no pronounced specificity: teachers of pre-retirement and retirement age perform the same professional functions as their young colleagues; the working week of a Russian teacher is 46 hours, while in other countries it is no more than 38 hours. The specificity of the late stage of a career concerns the subject of pedagogical activity, who has to handle age-related challenges associated with natural biological, mental and psychological aging. In this regard, the issue of the teacher's professional health becomes relevant.

Many researchers consider health an important resource for a successful professional life and the main indicator of maintaining its effectiveness Many researchers consider health an important resource for a successful professional life and the main indicator of maintaining its effectiveness (L.M. Mitina [10], G.S. Nikiforov [8], F. Kittel & F. Leinen [12], and others). The variety of views on the concept of "health", its indicators and criteria, and the failure to form a unified opinion are due to the fact that health is a complex phenomenon that is difficult to define unambiguously. Therefore, there is no generally accepted description of professional health [5].

Occupational health as a real phenomenon has attracted the attention of Russian researchers since the late 80-s of the 20th century. Attempts to define and describe this phenomenon are presented in the works of A.G. Maklakov [7], G.S. Nikiforov [8], V.A. Ponomarenko [6] and others.

The authors define professional health as: 1) the ability of the body to maintain the necessary compensatory and protective mechanisms that ensure professional reliability and performance [6]; 2) a certain level of a professional's health characteristics that meets the requirements of professional activity and ensures its high efficiency [7]; 3) the psychological support of professional activities - from "entering" the profession to "exiting" from it [8].

The concept of "professional health" (or occupational health) is often equated with "professional hygiene" and is understood as the use of psychology to improve the quality of professional life, as well as to protect and ensure the safety, health and well-being of an employee [9].

The profession of a school teacher is of tremendous social importance, since it involves a great responsibility not only for the education and upbringing of the children, but also for their health. According to L.M. Mitina, the teacher's professional health is the basis for the effective work of the modern school [10].

The teaching profession is one of the few professions where the value-based approach to work has such a great impact on a professional's fate and the fate of other people. The success of pedagogical activity in many respects depends not only on how the teacher is able to coordinate their behavior, actions, statements, emotions and feelings, but also on their internal state, how psychologically safe they feel. All this ultimately affects the success of the teacher's and students' joint work.

It is no coincidence that the teaching profession is classified as involving an increased risk in terms of the incidence of neurotic and psychosomatic disorders. The reasons include, as a rule, longer working day, high neuro-psychic tension and social responsibility. These characteristics are a serious professional feature of a teacher's work.

A study of working conditions at school and their effect on health and well-being, conducted on a sample of teachers from various European countries as part of a large-scale intercultural study (EUROTEACH), indicates that physical load and the lack of social support affect teachers' health and their satisfaction with pedagogical activity, as well as their personal achievements. It was established that high demands on the teacher lead to low job satisfaction [11-13], high emotional exhaustion [14-16] and depersonalization [17; 18].

In the framework of this study, a teacher's professional health is defined as a complex of psychological characteristics that meets the requirements and conditions of professional activity and ensures the optimal level of working capacity, personality development at all stages of professionalization and professional longevity.

An important issue is determining the structure of this phenomenon, which until now remains unresolved. There are currently two approaches to determining the structure of health – level-based and criterion-based.

Thus, in the framework of the first approach, B.S. Frolov distinguishes the following health levels: Level 1 - healthy; Level 2 - almost healthy; Level 3 - adverse prognostic signs; Level 4 - sick (but able to manage their actions); Level 5 - sick (cannot deal with their affairs, is a danger to themselves and others) [19].

A more detailed scheme is found in the works of B.S. Semichov who defines health in terms of six levels, namely: 1 – the ideal norm; 2 – the average norm (characteristic of the population as a whole); 3 – constitutional norm; 4 – accentuation (of personality and character); 5 – pre-pathology or level of increased risk (functional norm); 6 – pre-disorder (dysfunctional condition, subclinical signs) [20].

S.V. Zapuskalov and B.S. Polozhy indicate the following levels depending on the degree of stability: stable health; risk level; level of pre-disease; level of mild disorders; disorder level [21].

The level hierarchy suggested by B.S. Bratus is most commonly used in research papers. He suggests considering health as a three-level formation. The highest level of health - personal and meaningful, is determined by the quality of a person's meaningful relationships. The next level is the level of individual psychological health. Its assessment depends on a person's ability to find adequate ways to realize meaningful aspirations. The third level - the level of psycho-physiological health, is determined by the characteristics of the internal, neuro-physiological organization of mental activity acts [22].

Thus, from the point of view of the level-based approach, health is a complex formation that consists of a certain number of levels, each with certain characteristics. It should be noted that this approach is most closely related to the medical examination of health, since the levels identified correlate more with ill health than with good health. Studying occupational health from the perspective of the level-based approach does not allow operationalizing the phenomenon under consideration, since there is no certainty within the approach itself.

In the framework of the criterion-based approach, health is studied through identifying its criteria. To date, a large number of examples have been accumulated when individual features are suggested as criteria.

O.N. Kuznetsov and V.I. Lebedev identify the indicators that, in their opinion, can be considered as criteria of health, namely: the ability to adequately perceive the environment and act consciously, purposefulness, capacity to work, activity, full family life [23].

The most complete list of criteria is presented in the work of N.D. Lakosina and G.K. Ushakov. The authors include the following criteria: causality of mental phenomena, their necessity, orderliness; maturity of feelings corresponding to a person's age, constancy

of habitat; maximum approximation of subjective images to reflected objects of reality; harmony between the reflection of the realty circumstances and the person's attitude to it; correspondence of reactions (both physical and mental) to the strength and frequency of external stimuli; critical approach to life circumstances; ability to self-manage behavior in accordance with the norms established in different collectives; adequacy of reactions to public circumstances; the ability to change behaviour depending on changing life situations; self-affirmation in a team (society) without harming its other members; the ability to plan and implement their life path [24].

G.S. Nikiforov identifies psychological factors that contribute to preserving professional health in university teachers, including the internal locus of health control and health-strengthening behaviour, a positive attitude, high stress resistance in professionally difficult situations [25].

Most authors believe that the most informative criteria for professional health include self-esteem and the degree of anxiety manifestation. Positive-minded people who have clear goals in life and, therefore, are not inclined to torment themselves with doubts, insecurity, bad foreboding feelings and pessimism, have good prospects for strengthening and maintaining their own health.

Thus, in scientific literature, despite a large number of opinions, certain criteria are repeated. Secondly, only a list of criteria is presented without any classification principles. The analysis of various points of view on the definition of health criteria showed that there is no clear, generalized structure, although some similarities are noticeable within the selected criteria. At the same time, the reduction to any one universal criterion is also unproductive.

The most justified, in our opinion, is the consideration of occupational health in terms of its component composition. This approach allows systematizing and operationalizing the concept under study.

Thus, S.M. Shingaev considers occupational health as a three-dimensional structure that combines cognitive, emotional and behavioral modules. The cognitive module assumes a person adequately understands their level of health, based on knowledge about health and a healthy lifestyle, including when performing professional duties, awareness of the role of health and its impact on life in general, as well as on the success and effectiveness of professional activity, understanding of the main risk factors related to profession and ways to maintain and enhance health. The emotional module includes a range of experiences of the state of "health/illness" that arise in a particular professional situation, an adequate emotional response (from "releasing emotions" to restraining them when necessary). The behavioral module reflects the features of professional behavior that contribute to adaptation to changing environmental conditions and professional activities, as well as behavioral strategies due to changes in health status, and a healthy lifestyle and work [26].

Taking the specifics of the teacher's work into account, we have identified the following as the main structural components of the teacher's professional health:

1) motivational (motivation for self-preservation of professional health, high motivation for success, low motivation for avoiding failures);

2) emotional (low anxiety, low aggressiveness, high flexibility and low frustration, high empathy);

3) reflexive (the ability to self-distance and look at oneself from the outside perspective, to simultaneously see the pole of the subject and the pole of the object).

The study by S. Orang et al. showed that the older age group, compared with young and mature people, are more capable of finding the meaning in life, of self-acceptance, a

positive attitude towards others, personal growth and setting goals [27]. The structure of a teacher's professional health does not have the components related to general satisfaction as a subjective evaluation of the quality of life, psychological readiness to embrace age-related changes; however, in the framework of our study, these constructs are considered as integral characteristics of a person's attitude to life at a later age, connected with occupational health. Studying them allows bringing research into health at a later stage in the development of a teacher's career into a wider context of studying the role of pedagogical activity in the perception of one's life and in accepting age-related changes.

Readiness for mastering age-related changes is understood by the authors as an integrative mental formation that determines a person's realizing the fact of their own aging, a tolerant attitude towards it and manifests itself in an active search for productive strategies for adapting to this process. The model of readiness for accepting age-related changes includes four components: physiological, social, personal-psychological, professional, which are implemented at three levels: cognitive (awareness and understanding of ongoing age-related changes, knowing how to overcome and embrace them), affective (experiencing emotional attitude to ongoing changes), motivational (active search and use of productive strategies for adapting to age-related changes). The components of readiness reflect the main aspects of human aging: physiological (increased body vulnerability, aging of the basic physiological systems, the manifestation of external signs of aging); social (the attitude of others as to an elderly, old person and a change in the nature of communication with them, the loss of old roles and the acquisition of new social roles); personal-psychological (changes in the cognitive sphere, developing tendency to transfer experience, a person's sense of self, an understanding of their position in the age structure); professional (reduced role of professional activity in life, mentoring, retirement) [28].

These ideas about the structure of the phenomena under consideration are the basis for studying them.

Materials and methods

The purpose of the study is to identify the features of professional health at a late stage in the development of a school teacher's career.

This study is based on the following assumptions:

1. As the length of time working at school increases, the manifestation of indicators of all components of a teacher's professional health changes.

2. Teachers who continue their pedagogical activity after retirement are more satisfied with life and less psychologically prepared to accept natural age-related changes.

The study involved 198 teachers from different schools in Yekaterinburg (Russia). The sample was formed using the stratification method. We randomly selected schools from different administrative districts of Yekaterinburg, and surveyed all teachers in each school. The number of male teachers who participated in the study was only 7.5% of the total number of participants. Therefore, our findings should be applied mainly to the category of female teachers.

The sample was divided into 3 groups. The main group consisted of teachers with experience of school teaching of more than 35 years and included 98 people. The age range was 57-66, the average age being 58.7. The study also included two control groups: the first control group of 50 young teachers with work experience of up to three years; and the second control group of 50 teachers who had already finished their professional career.

All subjects gave their informed consent for inclusion before they participated in the study. The study was conducted individually and anonymously, every teacher received a set of psycho-diagnostic techniques. Only fully completed sets of questionnaires were selected for data interpretation.

The psycho-diagnostic tools were selected on the basis of the identified structural components of the teacher's professional health. As a result, the following set of standardized psycho-diagnostic methods was formed:

• studying the motivational component of a teacher's professional health:

1. The "Motivation for success" questionnaire (T. Ehlers) (to determine the strength of motivation for achieving success).

2. The "The motivation for avoiding failures" questionnaire (T. Ehlers) (to determine the level of motivation for avoiding failures).

• studying the emotional component of a teacher's professional health:

3. The "Self-assessment of emotional states" questionnaire (H.J. Eysenck) (determines the level of expression of such emotional states as anxiety, frustration, aggressiveness, rigidity).

4. The "Empathy" questionnaire (A. Mehrabian) (to measure such components of empathy as sympathy and effective empathy).

• studying the reflective component of a teacher's professional health:

5. Differential test of reflexivity (D.A. Leontiev, E.N. Osin) (to determine the level of such types of reflection as systemic reflection, quasi-reflection, introspection).

6. The methodology for diagnosing the level of reflexivity (A.V. Karpov) (determines the level of its development).

• studying life satisfaction and the acceptance of age-related changes as characteristics associated with occupational health:

7. The "Life Satisfaction Index" methodology, N.V. Panina's adaptation (an adapted version of A.O. Neugarten's questionnaire of the general psychological state of a person, determines the level of satisfaction with life).

8. The "Readiness for mastering age-related changes" questionnaire developed by N.S. Glukhanyuk and T.B. Sergeeva (Gershkovich) (determines the general indicator of readiness; cognitive, affective and motivational levels of readiness; physiological, social, personal-psychological and professional components of readiness) [28].

The data collected from the survey were analyzed using the "Statistical Package for Social Sciences" (SPSS). Descriptive analysis and comparative analysis using the Mann-Whitney U-test were used for statistical data processing.

Results

At the *first stage* of the study, the specifics of the manifestation of the teacher's professional health components at a late stage of career development were determined.

The motivational component of the teacher's professional health is characterised by the predominance of a high (42%) motivation for success. This indicates that for most teachers there is a characteristic lack of a pronounced commitment to excellence, including when performing teaching activities, and obtaining obvious attributes of success is not very important for them. The teachers who are highly motivated for success prefer actions aimed at achieving aims and show perseverance in this.

High levels of motivation for avoiding failures were identified in the majority of the respondents (58%). In most cases, this is manifested in self-doubt, not believing in the possibility of achieving success, fear of external evaluation and criticism: the work associated with the possible failure causes negative emotions. These teachers tend to ignore objective information about their abilities, therefore, when performing professional activities they select inadequate tasks: they prefer work that is either too easy to avoid possible failure, or too complex to justify a possible failure.

Thus, the motivational component of professional health is characterised by a high motivation for success and a high level of failure avoidance. This evidences a lack of willingness to take risks, to achieve own professional goals, pronounced insecurity when achieved these.

The emotional component of the teacher's professional health is characterised by a predominance of low levels of frustration (39%) and aggressiveness (36%), and highly pronounced “rigidity” (42%) and “anxiety” (47%). The teachers experience negative emotions, they show a tendency towards anxiety and mistrust, tend to stick to the usual ways of working and are reluctant to change anything when performing their professional pedagogical activity.

This group demonstrates a high level of empathy (57%), which is manifested in responding to the mental state of another person (student, parent, colleague), in the ability to sympathise with others, and emotional impressionability.

Thus, the emotional component of professional health is characterised by a low level of frustration and aggressiveness, a high level of anxiety, rigidity and empathy. This indicates the tendency of teachers to display worry and anxiety, attachment to familiar and well-tried actions. At the same time, it is characteristic of them to be able to understand other people’s emotional state.

The reflective component of the teacher's professional health (Table 1) was analysed in comparison with the normative indicators of the Differential reflexivity test [29].

The level of systemic reflection in the group of teachers exceeds the average (49.44 points). This indicates that teachers can adequately evaluate the results of their own or other people's activities, they do not have difficulty understanding the causes of students’ actions or behaviour, therefore, difficulties in building relationships with them do not arise.

Table 1

Results of empirical data on Differential reflexivity test (D.A. Leontiev, E.N. Osin)

Scale	Study (N=98)		Norms (N=3860)	
	Average	Standard deviation	Average	Standard deviation
Systemic reflection	49,44	4,70	39,58	5,15
Introspection	20,00	5,28	25,11	5,68
Quasi-reflection	19,30	5,45	27,39	5,69

The levels of “introspection” are below the average (20.00 points), that is, teachers are not inclined towards self-scrutiny or focused on their own emotional experiences.

Quasi-reflection is at a low level (19.30 points), which indicates the teachers’ concentration on the objects relevant to them and the lack of extraneous reflections.

The results of studying the levels of reflexivity obtained using A.V. Karpov’s methodology [30] are considered below.

The average level of reflexivity was identified in the overwhelming majority of teachers (72.8%). This is manifested in teachers having difficulties with establishing and analysing the causal relationships between both their and other people's actions, they are not always able to objectively evaluate their own results; sometimes it can be difficult for them to put themselves in other people's position and understand them.

Thus, the reflective component of professional health is characterised by an average level of reflexivity, high levels of systemic reflection, as well as low introspection and quasi-reflection. This indicates that teachers are able to objectively evaluate their own professional activities, can put themselves in other people's position, and understand the causal relationships between both their and students' actions.

At the *second stage* of the study, the specific features of the teacher's professional health at a late stage of career development were determined. A comparative analysis of the professional health indicators of teachers in the experimental group and the first control group (young teachers) was carried out using the Mann-Whitney U-test. The following statistically significant differences were found.

At a late stage of career development, in comparison with teachers beginning their professional career, there is a statistically significant increase in the motivation for success ($U = 414,5$, $p = 0.013$). This may be due to the fact that the work experience, the accumulated experience of pedagogical activity, and a certain position, contribute not only to setting goals that are adequate to capabilities, but also to their achievement.

The results of the comparative analysis indicate an increase in the level of anxiety ($U = 432$, $p = 0.023$) and rigidity ($U = 413$, $p = 0.012$). This may be due to the fact that increased working experience brings confidence in terms of professionalism: the teacher has the knowledge and experience, a definite position, etc., but the number and volume of tasks are constantly increasing, they are not always clearly defined, causing worry, anxiety and unwillingness to change anything in the process of performing pedagogical activities.

An increase in systemic reflection was also established ($U = 422$, $p = 0.016$). This can be attributed to the fact that over the years of working at school the teacher develops the ability to be more objective, and better understands and analyses the causes and effects of various events occurring when implementing pedagogical activities.

Thus, by the late stage of a teacher's career development, the values of indicators of all professional health components change.

At the third stage of the study, a comparative analysis was conducted of life satisfaction and components of readiness to master the age-related changes among working and non-working teachers of retirement age. This made it possible to specify the concept of professional health of a teacher at a later stage in career development.

It was found that the level of satisfaction with life among working teachers of retirement age is significantly higher than that among non-working teachers ($U = 291$, $p = 0.00007$). At the same time, working pensioners compared to non-working pensioners, have a lower general indicator of psychological readiness for embracing ageing ($U = 344$, $p = 0.001$) and lower manifestation of all its levels: cognitive ($U = 584$, $p = 0.037$), affective ($U = 614$, $p = 0.022$), motivational ($U = 681$, $p = 0.048$). The most pronounced differences are in the manifestation of the personal-psychological component of readiness ($U = 94$, $p = 0.00001$). The teachers who finished their professional careers reflect better and understand the inevitability and natural character of normal age-related changes. Working teachers of retirement age are more prone to negative emotions caused by age-related changes and less willing to adapt to them. First of all, this refers to changes in self-awareness, motivational sphere, and cognitive processes.

Discussion

The results obtained in the study of teachers' professional health at a later stage of career development, as well as their comparison with the current research data on various aspects of professional health, indicate that they are broad and diverse in terms of methodology and the stated problems.

Thus, age alone cannot be unambiguously defined as a predictor of changes in occupational health. It has been established that age has a small modeling effect on psychological factors and health, and older people working in management positions have greater resistance to burnout [31]. Elderly people have a higher correlation between self-efficacy and burnout compared to other ages [32]. Age indirectly determines less strong burnout and greater engagement, through strategies of emotional regulation and preliminary actions. However, age negatively correlates with exhaustion and cynicism, and positively correlates with professional performance and engagement [33]. Psychological performance decreases with age only in case of a high level of burnout: with a lower level of burnout, late age is associated with improved psychological performance [34].

However, a number of authors consider age as a negative predictor of occupational health. A meta-analysis by L. Peng and A.H.S. Chan shows that aging negatively correlates with occupational health and occupational safety. Older employees are more vulnerable in the workplace than their younger counterparts. However, the number of fatal accidents is 5.8% lower than for younger employees [35].

The above is also consistent with our results. We found that with increasing age and work experience, changes occur in the manifestation of indicators of professional health components in teachers at a later stage in career development: reflexivity improves, anxiety and rigidity worsens, and frustration remains unchanged.

But age is not the only predictor that affects an employee's professional health. It is also important to consider the factors related to the characteristics of professional activities, the social environment and the employee themselves.

The results of studies of the nature of activity as a predictor of older people's occupational health are also quite heterogeneous, and partly contradictory. In Australia, for example, following the increase of retirement age, the effects of working at an older age on mental health and well-being were studied. The purpose of the study was to determine the correlation between the employee's age, professional status (full-time, part-time, retired) and their mental health and well-being – for those who have reached the retirement age of 60. Potential covariates were marriage, physical health, financial stress, and the effect of a low skill level and the physical requirements of the profession were studied. The results of the study of employees aged 60-79 showed that older people, people working part-time and men have better indicators of mental health and well-being. The skill level and physical requirements of the profession did not affect mental health and well-being [36].

A group of Finnish scientists investigated the effects of old age on experiencing work stress in different professional groups. It was found that the instability of professional activity is negatively manifested in a decrease in job satisfaction and energy among medical workers. However, older people are protected from the negative impact of a

high workload: job satisfaction among service providers, academic staff members does not change [37].

Chinese researchers studied the effects of professional mobility and health on life satisfaction in various professions. The results of a twenty-year longitude study show that the state of health, the direction and distance of professional mobility significantly affect life satisfaction of representatives of various professions in China. Thus, the respondents who were not sick and had no injuries showed a higher satisfaction with life. Vertical professional mobility negatively affects life satisfaction, and long-distance mobility has a positive effect [38].

In people over 65 engaged in professional activities, the indicators “mobility”, “self-care”, “normal activity” were higher, and the indicators “pain/discomfort” and “anxiety/depression” were lower than in the unemployed. Manual workers had more depressive and suicidal thoughts than non-manual workers [39].

We obtained similar results - teachers who retained their professional employment after retirement show a higher satisfaction with life. Although it is difficult to talk about the full correlation of the results - both men and women participated in the mentioned studies, and the sample in our study was predominantly female.

In a study by Armenta B.M. and others facts relevant to our results can be found. They revealed that when an older employee encounters daily labour problems, chronological dissociation occurs, which manifests itself in the fact that the employee feels younger and does not identify with their age group, and this, in turn, contributes to a sense of well-being [40]. We found that retirement-age teachers who continue working have increased life satisfaction, but reduced psychological readiness to embrace age-related changes.

The results of our study and the studies presented in the discussion allow us to state that the age and characteristics of professional activity do not unambiguously determine professional health, although they affect its manifestations.

It can be assumed that the characteristics of the social environment have some effect on professional health. It was found that unfavorable social environment has a negative impact on staff turnover, professional results, efficiency and performance, and motivation [41]. In the 55-60 age group performance is mediated by the correlation between the perception of negative age stereotypes and the intention to retire [42]. These results are partially consistent with our findings that teachers at a later age tend to defy normative age-related changes. Thus, the social environment affects individual occupational health indicators, but is not a predictor of their general level in older workers.

A number of personal characteristics and specifics of coping with life difficulties were also considered by researchers in the context of professional health. It was found that the ability to restore self-efficacy after occupational stress helps maintain professional health [43], and so does the ability to use of one’s strengths, which in turn makes it possible to feel energetic, to be authentic and to develop [44]. It was found that neuroticism, extraversion, and commitment have a positive correlation with success in workers over 50. In addition, the employee’s success contributes to their employment at a later age, unlike self-confidence [45]. Our study did not aim to research the personality characteristics of teachers at a later age. However, it is difficult to deny the influence of this factor, and identifying its specifics is the subject of our further study.

Conclusions

The results obtained demonstrated the complex and ambiguous role of professional activity at a later stage of a teacher's career development and allowed us to draw the following conclusions:

1. Changes affect all the components of professional health, but their modality is different. Whereas the increased motivation for achievement and reflexivity can be considered a generally positive trend, the changes in the emotional component of health (high anxiety and rigidity) are negative.

2. A higher level of life satisfaction among working pensioners indicates a positive role of labour activity in the socio-emotional well-being of an elderly person. Continuing pedagogical activity gives the "young" pensioner the opportunity to maintain their usual lifestyle, social and financial status, and ways of self-realization in their profession. With finishing the career and acquiring the status of "former professional" life satisfaction decreases. At the same time, non-working teachers of retirement age are better aware of and better understand the natural character of the physical manifestations of aging, changes in social status and in attitudes of others, and loss of professional activity. They are more comfortable with current and future age-related changes and plan their lives in the conditions of future transformations. Working retirement-age teachers have a much weaker psychological readiness to master their age: they avoid thinking about old age and view it more negatively.

These results may be specific for Russian teachers, since in Russia this professional sphere has traditionally high rates of professional viability and a clear predominance of working women. In subsequent studies, the revealed trends in changes in professional health will be checked at the later stages of career development for professionals in other fields, with equal representation of men and women.

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Информация об авторах

Печеркина Анна Александровна
(Российская Федерация, Екатеринбург)
Доцент, кандидат психологических наук, заведующая кафедрой педагогики и психологии образования
Уральский федеральный университет имени первого Президента России Б.Н. Ельцина
E-mail: 79apa@mail.ru
ORCID ID: 0000-0002-2261-2505
Scopus ID: 57190120274

Сергеева Тамара Борисовна
(Российская Федерация, Екатеринбург)
Доцент, кандидат психологических наук, доцент кафедры общей и социальной психологии
Уральский федеральный университет имени первого Президента России Б.Н. Ельцина
E-mail: tamara.2005@mail.ru
ORCID ID: 0000-0003-4743-444X
Scopus ID: 57191168346

Information about the authors

Anna A. Pecherkina
(Russia, Yekaterinburg)
Associate Professor, PhD in Psychology, Head of the Department of Pedagogy and Psychology of Education
Ural Federal University named after the First President of Russia B. N. Yeltsin
E-mail: 79apa@mail.ru
ORCID ID: 0000-0002-2261-2505
Scopus ID: 57190120274

Tamara B. Sergeeva
(Russia, Yekaterinburg)
Associate Professor, PhD in Psychology, Associate Professor of Department of General and Social Psychology
Ural Federal University named after the First President of Russia B. N. Yeltsin
E-mail: tamara.2005@mail.ru
ORCID ID: 0000-0003-4743-444X
Scopus ID: 57191168346